



# UNITED STATES PATENT AND TRADEMARK OFFICE

SP

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/088,600      | 06/04/2002  | Satoshi Yoshida      | 0445-0320p          | 6882             |

2292 7590 03/10/2005

BIRCH STEWART KOLASCH & BIRCH  
PO BOX 747  
FALLS CHURCH, VA 22040-0747

EXAMINER

STEPHENS, JACQUELINE F

ART UNIT PAPER NUMBER

3761

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/088,600

Applicant(s)

YOSHIDA ET AL.

Examiner

Jacqueline F Stephens

Art Unit

3761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/4/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 12/17/04 have been fully considered and they are partially persuasive. Applicant argues the claimed hot melt viscosity limitations are not arbitrary, referring to lines 16-28 on page 5 of the specification. This argument is persuasive. Applicant further argues Alper/Fries does not show motivation for one of ordinary skill in the art to depart from the melt viscosities taught in the prior art to seek a hot melt adhesive viscosity that will simultaneously provide both good shear resistance characteristics and good peeling strength characteristics. This argument is not persuasive in that Alper in Tables 1 and Table 2 discloses his hot melt adhesive has a melt viscosity within the claimed range (see Office Action mailed 10/6/04 page 4, paragraph 1). Additionally, Alper discloses similar composition for the hot melt adhesive as described in the present invention. See Alper col. 4, lines 1-15 and col. 5, line 27 through col.9, line 17 and Examples 1 and 2 where Alper discloses the base polymer, tackifier, softener, and antioxidant similar to the disclosed materials used in the present invention. Therefore the hot melt adhesive of Alper would be capable of providing both good shear resistance characteristics and good peeling strength characteristics.

The Baker et al. USPN 3792801, Lauritzen USPN 5417789, and Nakanishi USPN 4520049 references were cited on the PTO-892 form mailed 3/26/04 to show the state of the art with respect to application of adhesives, particularly hot melt adhesives to a base material.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alper USPN 5149741 in view of Fries et al. USPN 5549592.

5. As to claim 1, Alper discloses a hot melt adhesive for bonding components of disposable diapers (col. 17, lines 52-56). Alper does not specifically disclose a disposable diaper having the claimed elements. However, it is old and well known and, therefore, obvious to one of ordinary skill in the art, that disposable diapers and sanitary

napkins comprise a liquid-permeable topsheet, a liquid-impermeable backsheet, and a liquid-retentive absorbent member disposed between the topsheet and backsheet.

Alper discloses his hot melt adhesive has a melt viscosity within the claimed range (Table 1 and Table 2 and col. 18, lines 1-2). Additionally, Alper discloses similar composition for the hot melt adhesive as described in the present invention – col. 4, lines 1-15 and col. 5, line 27 through col.9, line 17 and Examples 1 and 2 where Alper discloses the base polymer, tackifier, softener, and antioxidant similar to the disclosed materials used in the present invention. Therefore the hot melt adhesive of Alper would be capable of providing both good shear resistance characteristics and good peeling strength characteristics.

While Alper discloses the adhesive can be used for fastening tape tabs on a diaper as discussed above, Alper does not specifically disclose a side flap on each side of a back portion of the diaper and a tape tab for fastening the diaper on each side flap. Fries discloses a disposable undergarment having a tape fastener adhered to a nonwoven side flap (col. 16, lines 36-60 and col. 17, lines 35-37) for the benefit of providing a stronger and more reliable fastening system (col. 1, lines 37-40). It would have been obvious to one having ordinary skill in the art to use a combined structure of the tab fastener with a nonwoven side flap in the invention of Alper for the benefits disclosed in Fries.

As to the materials used in the side flap, pages 3 and 4 of the specification sets forth materials capable of having the claimed test results. Alper/Fries teaches similar materials for the nonwoven layer and (Fries col. 16, line 36 through col. 18, line 16). Thus, Alper/Fries obviously includes a tape tab and side flap capable of the claimed test results. When the structure recited in the reference is substantially identical to that of the claims of the instant invention, claimed properties or functions are presumed to be inherent (MPEP 2112-2112.01). A *prima facie* case of either anticipation or obviousness has been established when the reference discloses all the limitations of a claim except a property or function and the examiner can not determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention but has basis for shifting the burden of proof as in *In re Fitzgerald*, 619 F.2d 67, 70 205 USPQ 594, 596 (CCPA 1980).

As to claim 2, Alper/Fries discloses the present invention substantially as claimed. However, Alper/Fries does not disclose the claimed basis weight of the nonwoven fabric. In *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

As to claims 3 and 6, Alper/Fries discloses a method for applying adhesive to a substrate Alper/Fries discloses the adhesive is suitable for diapers ( Alper col. 1, lines 58-67) where the hot melt adhesive is contained in a tank of an applicator to an application head through a feed conduit (Alper col. 2, lines 56-62). Alper discloses the tank is heated and the application system is heated (Alper col. 1, lines 39-45; col. 2, lines 56-66). Alper does not specifically disclose the adhesive in the application head has a temperature lower than the adhesive in the tank. However, Alper discloses the need for the adhesive going to the substrate to be cooled (Alper col. 2, line 56 through col. 3, line 5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the temperature of the adhesive in the application head to be lower than the temperature of the adhesive in the tank so the adhesive being deposited on the substrate is cool enough for heat-sensitive fibers, which Alper teaches is desired (Alper col. 3, lines 3-5).

As to the materials used in the side flap, pages 3 and 4 of the specification sets forth materials capable of having the claimed test results. Alper/Fries teaches similar materials for the nonwoven layer and (Fries col. 16, line 36 through col. 18, line 16). Thus, Alper/Fries obviously includes a tape tab and side flap capable of the claimed test results. When the structure recited in the reference is substantially identical to that of the claims of the instant invention, claimed properties or functions are presumed to be inherent (MPEP 2112-2112.01). A *prima facie* case of either anticipation or obviousness has been established when the reference discloses all the limitations of a claim except a property or function and the examiner can not determine whether or not

the reference inherently possesses properties which anticipate or render obvious the claimed invention but has basis for shifting the burden of proof as in *In re Fitzgerald*, 619 F.2d 67, 70 205 USPQ 594, 596 (CCPA 1980).

As to the spread of the hot-melt adhesive, Alper/Fries does not specifically disclose the claimed spread. However, Alper discloses a hot melt adhesive that has good shear resistance and 180° peel strength characteristics (Alper col. 4, lines 61-68; col. 14, lines 2-10, Table I, col. 17, lines 52-63) as well as an adhesive formulated from similar compositions and used in the same manner, for disposable diapers. Therefore, one of ordinary skill in the art would be able to determine through routine experimentation the ideal spread necessary for applying the adhesive to a substrate.

As to claim 4, Alper/Fries discloses a method for applying adhesive to a substrate Alper/Fries discloses the adhesive is suitable for diapers (Alper col. 1, lines 58-67). Alper/Fries does not specifically disclose the temperature of the hot melt adhesive in the tank as compared to the temperature of the hot melt adhesive in the applicator. However, Alper/Fries discloses the need for the adhesive going to the substrate to be cooled (Alper col. 2, line 56 through col. 3, line 5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the temperature of the adhesive in the application head to be lower than the temperature of the adhesive in the tank so the adhesive being deposited on the

substrate is cool enough for heat-sensitive fibers, which Alper/Fries teaches is desired (Alper col. 3, lines 3-5).

As to claim 5, Alper/Fries discloses the present invention substantially as claimed. Alper/Fries discloses the melt viscosity of the hot melt adhesive within the claimed range (Alper Table 1 and Table 2 and col. 18, lines 1-2). However, Alper/Fries does not specifically disclose the viscosity of the adhesive in the application head. Alper/Fries teaches reducing the temperature of the adhesive composition even if the air stream of the spray nozzle is heated (Alper col. 2, lines 55-66; col. 12, lines 24-30 and 61-62). Alper further teaches higher viscosities occur with lower temperatures (Alper col. 3, lines 1-9 and 49-52). Alper/Fries recognizes the adhesive temperature can be varied with his adhesive composition and this will affect viscosity. Alper/Fries, therefore recognizes the viscosity is a result effective variable of temperature and composition. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the article of Alper/Fries with the claimed viscosity of the adhesive in the application head, since discovering an optimum value of a result effective variable involves only routine skill in the art.

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacqueline F Stephens whose telephone number is (571) 272-4937. The examiner can normally be reached on Monday-Friday 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Schwartz can be reached on (571)272-4390. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3761

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jacqueline F Stephens  
Examiner  
Art Unit 3761

February 28, 2005